

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in the present application.

What Is Claimed Is:

1. (Currently amended) A communication management system comprising:

a terminal of a user;

an authentication server which is managed by the maker of the terminal and authenticates the terminal; and

a management server which is provided separately from the authentication server and manages an IP address ~~network address~~ which uniquely identifies the terminal on a network,

the terminal comprising:

a holding unit which holds a device ID which is fixedly ~~specifically~~ assigned to the terminal in such a manner as to uniquely identify the terminal;

an authentication request unit which reads the device ID from the holding unit, and sends the device ID to the authentication server to make a request for authentication;

a certificate acquisition unit which acquires a certificate, which certifies success in the authentication of the device ID, from the authentication server; and

a registration request unit which sends the certificate to the management server, to make a request for registration of the IP address ~~network address~~, which is assigned to the ~~own~~ terminal,

the authentication server comprising:

an authentication reception unit which acquires the device ID from the terminal and receives the request for the authentication;

a terminal database which holds a device ID unique to the terminal to be authenticated;

an authentication unit which authenticates the correctness of the device ID of the terminal by referring to the terminal database; and

a certificate issue unit which issues a certificate when succeeding in the authentication of the terminal,

an ID issue unit which issues an ID for uniquely identifying the terminal when succeeding in authentication of the terminal; and

a communication control unit which transmits the certificate issued by the certificate issue unit and the ID issued by the ID issue unit to the terminal,

the management server comprising:

a database which holds the an ID issued by the ID issue unit which uniquely identifies the terminal, and the IP address network-address in a manner that they are associated with each other;

a registration reception unit which acquires, from the terminal, the certificate, the ID issued to the terminal by the ID issue unit, and the IP address of the terminal ~~from the terminal~~, and receives the request for registration of the IP address network-address of the terminal;

a registration unit which verifies the correctness of the certificate, and registers the ID and the IP address network-address of the terminal in the database when the certificate is confirmed to be correct;

an inquiry reception unit which receives the request for inquiring the IP address network-address of the terminal;

a search unit which searches through the database on the basis of the ID of the terminal as the target of an inquiry, to acquire the IP address network address of the terminal; and

an answer unit which answers search result;

a user database which stores information related to the user of the terminal; and

a matching control unit which controls matching of a communication partner between the terminals, wherein

when the inquiry reception unit receives a requirement for the communication partner,

the search unit searches through the user database on the basis of the requirement, and

the matching control unit determines the communication partner on the basis of search result, and

the answer unit answers the communication partner.

2. (Original) The communication management system according to claim 1, wherein

the holding unit holds the device ID in such a manner that the device ID is un-rewritable from outside.

3. (Currently amended) The communication management system according to claim 1, wherein

the terminal database stores the device ID assigned by the maker of the terminal to the terminal and acquired from the maker of the terminal

the authentication server further comprises an ID issue unit which issues an

~~ID for uniquely identifying the terminal when succeeding in authentication of the terminal, wherein~~

~~—— the registration reception unit receives the ID from the terminal, the ID being issued by the ID issue unit to the terminal, and~~

~~—— the registration unit registers the ID, issued by the ID issue unit to the terminal, and the network address in the database.~~

4. (Original) The communication management system according to claim 1, wherein

the management server further comprises a group database which holds information related to a group including a plurality of the terminals, wherein

the inquiry reception unit receives a request for an inquiry about the group, and

the search unit searches through the group database on the basis of the request for the inquiry.

5. (Currently amended) The communication management system according to claim 1, wherein

the management server is managed by a service provider servicing the terminal further comprises ~~a matching control unit which controls matching of a communication partner between the terminals, wherein~~

~~—— the inquiry reception unit receives a requirement for the communication partner, and~~

~~—— the search unit searches through the database on the basis of the requirement, and~~

~~the matching control unit determines the communication partner on the basis of search result, and~~

~~the answer unit answers the communication partner.~~

6. (Currently amended) A method for managing communication comprising:

reading a device ID by a terminal of a user, the device ID unique to the terminal and fixedly assigned to the terminal being held in a memory in the terminal;

sending the device ID from the terminal to an authentication server managed by the maker of the terminal and for authenticating the terminal;

authenticating the correctness of the device ID by the authentication server by referring to a device database storing the device ID of the terminal to be authenticated;

issuing a certificate for certifying success in authentication of the device ID by the authentication server and an ID for uniquely identifying the terminal, when succeeding in the authentication;

sending the certificate and the ID from the authentication server to the terminal;

sending the certificate, the ID, and an IP address from the terminal to a management server provided separately from the authentication server, the management server managing a network address for uniquely identifying the terminal on a network;

verifying the certificate by the management server; ~~and~~

storing an ID for uniquely identifying the terminal and the IP address network address in a database by the management server, in a manner that they are associated with each other, when the certificate is confirmed to be correct;

receiving a request for an inquiry about the IP address of the terminal by the management server;

searching through the database on the basis of the ID of the terminal by the

management server, to acquire the IP address of the terminal; and
answering the IP address by the management server

7. (Original) The method according to claim 6, wherein
steps from reading the device ID to storing in the database are automatically
carried out without involvement by a user.

8. (Currently amended) The method according to claim 6 further comprising:
receiving a requirement for the communication partner by the management
server;
~~receiving a request for an inquiry about the network address of the terminal~~
~~by the management server;~~
searching through a user the database storing information related to the user
of the terminal, on the basis of the requirement ID of the terminal by the
management server, ~~to acquire the network address of the terminal;~~ and
determining the communication partner on the basis of the search result by
the management server; and
answering the communication partner network address by the management
server.

9. – 13. (Canceled)

14. (Currently amended) A management server comprising:
a database which holds an ID for uniquely identifying a terminal and an IP
address ~~a network address~~ of the terminal in a manner that they are associated with

each other, the ID being issued by an authentication server managed by the maker of the terminal and adapted to authenticate the terminal;

a registration reception unit which acquires a certificate from the terminal and receives a request for registration of the IP address network-address of the terminal, the certificate being issued by the authentication server and certifying success in the authentication of a device ID uniquely identifying the terminal and fixedly assigned to the terminal ~~being issued by an authentication server which authenticates the terminal to certify success in authentication of the terminal;~~

a registration unit which verifies the correctness of the certificate, and registers the ID issued by the authentication server to the terminal and the IP address network-address of the terminal in the database, when the certificate is confirmed to be correct;

an inquiry reception unit which receives a request for an inquiry about the network address of the terminal;

a search unit which searches through the database on the basis of the ID of the terminal as the target of the inquiry, to acquire the IP address network-address of the terminal; and

an answer unit which answers search result.

15. (Currently amended) A method for managing communication comprising:

acquiring a certificate from a terminal, and receiving a request for registering an IP address a network-address of the terminal, the certificate being issued by an authentication server, which is managed by the maker of the terminal and authenticates the terminal, to certify success in authentication of a device ID uniquely identifying the terminal and fixedly assigned to the terminal;

verifying the correctness of the certificate, and registering an ID₁ ~~for~~ uniquely identifying the terminal and issued by the authentication server, and the IP address network-address of the terminal in a database, when the certificate is confirmed to be correct;

receiving a request for an inquiry about the IP address network-address of the terminal;

searching through the database on the basis of the ID of the terminal as the target of the inquiry, to acquire the IP address network-address of the terminal; and
answering search result.

16. (Canceled)

17. (Currently amended) A computer-readable recording medium which stores a program to make a computer carry out:

a function of acquiring a certificate from a terminal, and receiving a request for registering an IP address a network-address of the terminal, the certificate being issued by an authentication server₁ which is managed by the maker of the terminal and authenticates the terminal₁ to certify success in authentication of a device ID uniquely identifying the terminal and fixedly assigned to the terminal;

a function of verifying the correctness of the certificate, and registering an ID₁ ~~for~~ uniquely identifying the terminal and issued by the authentication server, and the IP address network-address of the terminal in a database, when the certificate is confirmed to be correct;

a function of receiving a request for an inquiry about the IP address network-address of the terminal;

a function of searching through the database on the basis of the ID of the terminal as the target of the inquiry, to acquire the IP address ~~network address~~ of the terminal; and
a function of answering search result.